

ONE NEW SPECIES OF WATER MITES IN THE GENUS UNIONICOLA (ACARI, UNIONICOLIDAE) FROM CHINA

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Abstract One new species of water mites, *Unionicola (Anodontinatax) penicillatus* sp. nov. (Acari, Unionicolidae), collected in freshwater bivalves from Jiangxi, China, is described and figured. The type specimens are deposited in the Department of Bioscience and Technology, Nanchang University, China.

Key words Water mites, Unionicolidae, *Unionicola*, new species.

Water mites in the subfamily Unionicolinae Oudemans, 1909, which commonly infest freshwater mollusks, sponges and chironomids, have been recently revised by Vidrine (1986b). These water mites including only one genus, *Unionicola*, with some 50 subgenera and more than 200 species (Vidrine, 2002) are, with the exception of Antarctica, cosmopolitan in distribution.

This paper describes one new species of water mites in *Unionicola* from Jiangxi Province, China. Terminology and abbreviations for adult structures used follow Cook (1974) and Jin (1997). Measurements are given in microns (μm). All bars on Figs. equal 100 microns. The type specimens are deposited in the Department of Bioscience and Technology, Nanchang University, China.

Unionicola (Anodontinatax) penicillatus sp. nov.
(Figs 1-11)

Male. Body oval in shape, length 827, width 721, light black in life; dorsum with 2 lightly sclerotized platelets; interval between lateral eyes 373; capitulum stout and short, infracapitulum length 177, width 187; chelicera claws 70 in length; epimeral plates with hexagonal reticulation; AEGs with short postapodeme, AEGs length 208, width 213; median margin of Ep I lightly sclerotized; median distance between PEGs 36; PEGs with distinct postapodemes and elongate outer margins, length 260, width 265; genital field located at post-venter end, 178 in length, 265 in width, with one pair of plates and 5 pairs of acetabula on acetabular plates; ejaculatory complex 174 in length, 198 in width; anal pore located at post-dor-

sum end of body, 36 in length, 5 in width. P I short; P II slightly stout and bearing 4 spines; P III with 2 elongate spines; P IV with a distal tubercle and 2 papillous protrusions with a seta respectively; P V slightly curved, bearing 2 clawlets not separated by a wide gap, with ventral clawlets bifid. Dorsal lengths of palpal segments: P I 36, P II 120, P III 68, P IV 78, P V 47; dorsal lengths of I leg segments: I-L 3 218, I-L 4 291, I-L 5 234, I-L 6 182; dorsal lengths of IV leg segments: IV-L 3 334, IV-L 4 260, IV-L 5 307, IV-L 6 260. Swimming setae on leg segments: I-L 2-5 1-3-5-6, III-L 2-5 0-2-3-6, IV-L 2-5 0-5-3-3, II leg without swimming setae. IV leg sexually dimorphic, IV-L 4 bearing a dense, cluster of 8-10 short spines, IV-L 5 with 22-24 pectinate setae in a ventral mass; bifid claws of legs with dorsal prong longer than ventral prong.

Female. Body colour, palp and claws of legs similar to male; body nearly ellipsoidal in shape, length 1 289, width 1 105; dorsum with 4 lightly sclerotized platelets; interval between lateral eyes 433; infracapitulum length 213, width 229; chelicera 218 in length, chelicera claws 62 in length; AEGs length 286, width 265; median distance between PEGs 103; PEGs nearly rectangular, length 312, width 307; genital field 239 in length, 276 in width, located near post-venter end and with 2 pairs of acetabular plates, anterior acetabular plates with 2 acetabula each side and an inner flap bearing 2 short spines, posterior plates with 3 acetabula each side; anal pore 38 in length, 9 in width. Dorsal lengths of palpal segments: P I 26, P II 151, P III 60, P IV 135, P V 140; dorsal lengths of I leg segments: I-L 3 229, I-L 4 343, I-L 5 260, I-L

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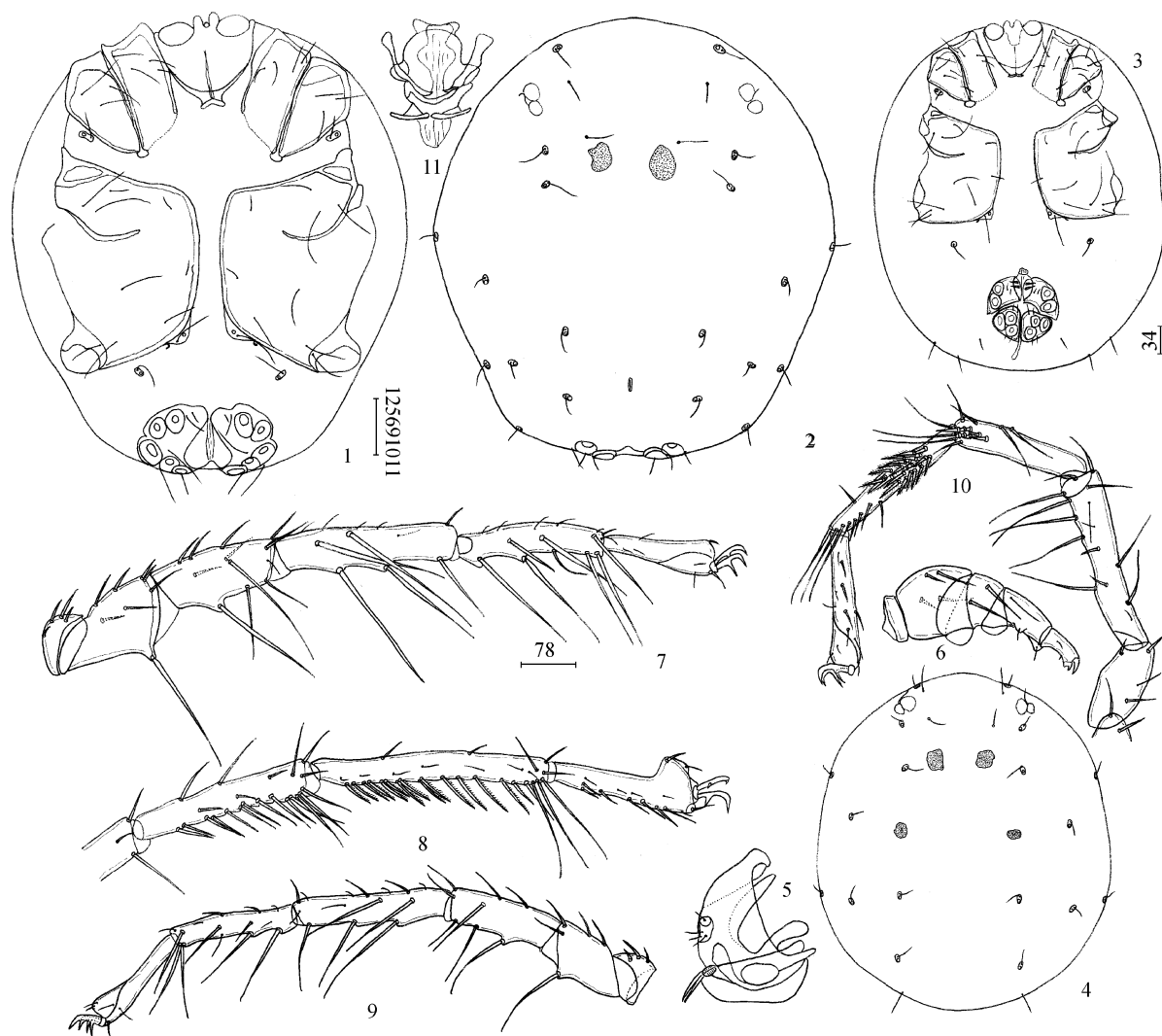
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6 172; dorsal lengths of IV leg segments: IV-L 3 286, IV-L 4 333, IV-L 5 437, IV-L 6 291. Swimming setae on leg segments: I-L 2-5 1-3-5-6, III-L 2-5 1-3-3-5, IV-L 2-5 0-4-0-3, II leg without swimming setae; IV-L 5 with 15 pectinate setae on venter.

Holotype ♂, paratype 1 ♀ collected in freshwater bivalves *Anodonta woodiana woodiana* (Lea) from Poyang Lake (28° 22' - 29° 45' N, 115° 47' - 116° 45' E), Jiangxi Province, 11 Nov. 1998, by WEN Churr Gen.

Diagnosis. The new species resembles *Unionicola* (*Anodontinatus*) *intermedia* (Koenike, 1882) but can be separated from the latter by male with dorsal platelets, shape of ejaculatory complex, number of dense spines on male IV-L 4+5 being 8-10 and 22-24 (the latter being 18-20 and 17-19), and bifid ventral clawlets of palp.

Etymology. This species is named for dense spines on male IV-L 4+5.



Figs 1-11. *Unionicola* (*Anodontinatus*) *penicillatus* sp. nov. 1. Male venter. 2. Male dorsum. 3. Female venter. 4. Female dorsum. 5. Female capitulum. 6. Female palp. 7. Female leg I. 8. Female IV-L 4+6. 9. Male leg I. 10. Male IV-L 2+6. 11. Ejaculatory complex.

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中国蚌螨属水螨一新种记述 (蜱螨亚纲, 蚌螨科)

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摘 要 记述了从我国江西省淡水蚌中采到的蚌螨科 Unionicolidae 水螨 1 新种, 簇刺蚌螨 *U. (Anodontinatax) penicillatus* sp. nov., 模式标本保存于南昌大学生物科学工程系。

簇刺蚌螨, 新种 *Unionicola (Anodontinatax) penicillatus* sp. nov. (图 1~11)

正模 ♂, 副模 1♀, 江西鄱阳湖, 1998-11-11, 文春根采自背角无齿蚌 *A. woodiana woodiana* (Lea)。

关键词 水螨, 蚌螨科, 蚌螨属, 新种.

中图分类号 Q959.226

鉴别特征 新种近似于中间蚌螨 *U. (Anodontinatax) intermedia* (Koenike, 1882), 但通过以下特征区别后者: 雄螨具有背小板, 雄螨 IV-L 4+5 的密刺毛数量为 8~10 和 22~24 (后者为 18~20 和 17~19), 射精复合体的形状和须肢的分叉腹小爪。

词源: 拉丁词 “*penicillatus*” 意思为 “一簇毛的”, 指新种因雄螨 IV-L 4+5 有一簇刺毛而命名。